



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,705	08/05/2003	Isao Tsuru	241188US0	6742

22850 7590 01/12/2006

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
----------	--------------

1714

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/633,705

Applicant(s)

TSURU ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In light of the new grounds of rejection set forth below regarding the double patenting rejection which are necessitated in light of changes to the copending claims of 10/329,349, the following action is non-final.

It is noted that applicants filing on 10/31/05 of English translation of the certified priority document previously filed on 8/5/03 perfects the foreign priority filing date.

Double Patenting

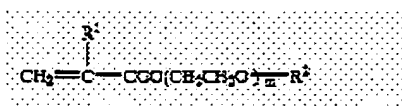
2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-10, 13, and 20-21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 16-19 and 21-24 of copending Application No. 10/329,349. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

Copending 10/329,349 discloses water-based ink comprising aqueous dispersion of water-insoluble vinyl polymer containing a colorant wherein the water-insoluble vinyl polymer is prepared by polymerizing 5-45% monomer (A) which is identical to presently claimed monomer (B), 3-40% monomer (B) having a salt-forming group which is identical to presently claimed monomer (C), 15-87% monomer (C) copolymerizable with monomer (A) and monomer (B) and styrenic macromer (E) which are each identical to presently claimed monomer (D), and 5-35% monomer (D) of the formula:



which is identical to presently claimed monomer (A).

The difference between copending 10/329,349 and the present claimed invention is the requirement in the claims of specific colorant, amount of polymer present with respect to the amount of pigment, and that the angular dependency of the color tone of the ink has maximum change in a^* of less than 40.

It is noted that copending 10/329,349 discloses the use of colorant, however, there is no explicit disclosure of Pigment Blue 15:4 as presently claimed or any disclosure that the water-

insoluble vinyl polymer is present in amount of 20-200 parts by weight based on 100 parts by weight of Pigment Blue 15:4.

Applicants' attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438, 164 USPQ 619, 622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to page 5, line 5-page 6, line 4 of copending 10/329,349 which discloses the use of colorant that is Pigment Blue 15:4 in order to prevent bronzing by reducing the angular dependency of color tone and page 6, line 22-page 7, line 2 of copending 10/329,349 which discloses the use of 20-200 parts polymer per 100 parts Pigment Blue 15:4 in order to reduce the angular dependency of color tone.

Although there is no disclosure in copending 10/329,349 that the angular dependency of the color tone of the ink has maximum change in Δ^* of less than 40, given that copending 10/329,349 discloses ink identical to that presently claimed including Pigment Blue 15:4, it is clear that the ink would intrinsically possess same angular dependency of color tone as presently claimed.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to choose Pigment Blue 15:4 as the colorant in copending 10/329,349 and to utilize 20-200

Art Unit: 1714

parts water-insoluble vinyl polymer per 100 parts pigment in copending 10/329,349 in order to produce ink with reduced angular dependency of color tone that exhibits no bronzing, and thereby arrive at the present invention from the copending one.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 1-10, 13, and 20-21 are directed to an invention not patentably distinct from claims 16-19 and 21-24 of commonly assigned 10/329,349. Specifically, although the conflicting claims are not identical they are not patentably distinct in light of the explanation given in paragraph 2 above.

5. The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302). Commonly assigned 10/329,349, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly

assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

6. Claims 1-10, 13, and 20-21 are provisionally rejected under 35 U.S.C. 103(a) as being obvious over copending Application No. 10/329,349 which has a common assignee/inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e) if published or patented. This provisional rejection under 35 U.S.C. 103(a) is based upon a presumption of future publication or patenting of the conflicting application. For an explanation of the rejection, see paragraph 3 above.

This provisional rejection might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by a showing of a date of invention for the instant application prior to the effective U.S. filing date of the copending application under 37 CFR 1.131. This rejection might also be overcome by showing that the copending application is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 12, 14-16, 18-19, and 22-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Claim 12 recites the limitation "the water-insoluble polymer particles" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. It is suggested that the phrase is changed to "the water-insoluble vinyl polymer particles".

Similar suggestion is made in each of claims 14-16, 18-19, and 22-23 which recite the same claim language as claim 12.

(b) Claim 12 recites that the water-insoluble vinyl polymer is prepared by "polymerizing monomers having only a single ethylenically unsaturated group." The scope of the claim is confusing because it is not clear what monomers are being referred to. Does the recitation of "monomers" refer to monomers (A), (B), (C), and (D)? Clarification is requested.

(c) Claim 22, which depends on claim 1, recites "the water-insoluble polymer particles consists of a water insoluble polymer" while claim 1 recites "water-insoluble vinyl polymer particles which comprise a water-insoluble vinyl polymer". Thus, the scope of claim 22 is confusing because it is not clear of the "water-insoluble polymer" of claim 22 is the same as the "water-insoluble vinyl polymer" of claim 1. Clarification is requested. If the polymers are the same, it is suggested that the above cited phrase of claim 22 be changed to "the water-insoluble polymer particles consists of the water-insoluble vinyl polymer".

Similar suggestion made in claim 23 which recites the same claim language cited above with respect to claim 22.

(d) Claim 22 recites “a water insoluble polymer containing polymerized monomer units of only at least three of monomers (A), (B), (C), and (D)” while claim 11 recites “water-insoluble polymer consists of polymerized monomer units of 3 or more monomers (A), (B), (C), and (D)”. Thus, the scope of claim 22 is confusing because it is not clear what the difference is between claim 22 and claim 11. Although written slightly differently, it appears that both claims require polymer containing polymerized units of three or more (A), (B), (C), and (D). Clarification is requested.

Claim Rejections - 35 USC § 102

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1-10, 13, and 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 1113051.

The rejection is adequately set forth in paragraph 7 of the office action mailed 7/29/05 and is incorporated here by reference.

Further, it is noted that paragraph 146 of EP 1113051 discloses using 100 parts water-insoluble vinyl polymer per 100 parts pigment which falls within the ratio presently claimed.

Further, with respect to newly added claim 21, it is noted that given that EP 1113051 disclose ink identical to that presently claimed, the ink would inherently possess angular dependency on color tone as presently claimed.

Claim Rejections - 35 USC § 103

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 1-13, 16-17, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. (U.S. 6,740,690) in view of Tabayashi et al. (U.S. 6,074,467).

The rejection is adequately set forth in paragraph 12 of the office action mailed 7/29/05 and is incorporated by reference.

Further, it is noted that Nakano et al. disclose that the polymer is present in amount of 100 parts per 100-400 parts pigment.

Additionally, with respect to newly added claims 11, 16-17, 19, 22, and 23, it is noted that col.4, line 45-col.5, line 39, col.8, lines 6-18, 25, and 39-41, col.9, line 51, and col.10, lines 1-6 of Nakano et al. disclose water-insoluble vinyl polymer obtained from (a) monomer having salt forming group which corresponds to presently claimed monomer (C), (b) styrene macromer which corresponds to presently claimed monomer (D), monomer copolymerizable with (a) and (b) such as styrene which corresponds to presently claimed monomer (D), (d) hydroxyl group-containing monomer such as polyethylene glycol methacrylate and hydroxyethyl (meth)acrylate which corresponds to presently claimed monomer (A), and (e) monomer of the formula:



where R^1 is hydrogen or C_1 - C_4 alkyl, R^2O is alkylene oxide group, and R^3 is hydrogen which corresponds to presently claimed monomer (B).

With respect to newly added claim 12, it is noted that the vinyl polymer is prepared by polymerizing monomers having a single ethylenically unsaturated group.

With respect to newly added claim 21, it is noted that given that Nakano et al. in view of Tabayashi et al. disclose ink as presently claimed, the ink would intrinsically possess angular dependency on color tone as presently claimed.

Response to Arguments

13. Applicants' arguments filed 10/31/05 have been fully considered but they are not persuasive.

Specifically, applicants argue that EP 1113051 is not a relevant reference against the present claims given that EP 1113051 discloses the use of graft polymer obtained by copolymerizing (meth)acrylic macromer while the present claims require water-insoluble polymer formed by polymerizing monomer mixture that is different than the monomer mixture of EP 1113051.

However, while EP 1113051 does utilize (meth)acrylic macromer to form graft polymer, there is nothing in the scope of the present claims against which EP 1113051 is applied that excludes the use of such macromer or the use of graft polymer. Given that EP 1113051 discloses that the polymer is obtained from (b) salt-forming group containing monomer and (c) monomer copolymerizable therewith such as styrene monomer or styrene macromer with polymerizable functional group wherein at least part of monomer (c) includes monomer of the formula:



it is the examiner position that EP 1113051 meets the requirements of the present claims with respect to the monomers utilized to form the polymer.

Applicants also argue that EP 1113051 does not disclose the amount of polymer present based on the amount of pigment utilized as now required in all the present claims.

However, example 4 (paragraph 146) of EP 1113051 discloses using 100 parts water-insoluble vinyl polymer per 100 parts pigment which falls within the ratio presently claimed.

Applicants also argue that the combination of Nakano et al. with Tabayashi et al. is not relevant against the present claims in light of the comparative data set forth in the present specification which establishes the criticality of using Pigment Blue 15:4.

It is noted that Nakano et al. disclose ink as presently claimed with the exception that there is no disclosure in Nakano et al. of the use of Pigment Blue 15:4. This is why Nakano et al. is used in combination with Tabayashi et al. which is drawn to ink comprising aqueous dispersion of water-insoluble vinyl polymer containing pigment that is Pigment Blue 15:4 in order to produce ink with good color and waterproof properties.

Applicants argue that the comparative data establishes unexpected or surprising results over the above cited prior art.

It is noted that the data compares ink inside the scope of the present claims, i.e. comprising Pigment Blue 15:4, with ink outside the scope of the present claims, i.e. comprising

Art Unit: 1714

Pigment Blue 15:3. It is shown that the ink of the present invention is superior in terms of reduced angular dependency of color tone.

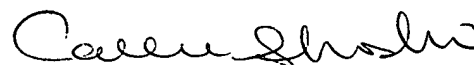
However, it is the examiner's position that the data is not persuasive in overcoming the cited prior art given that Tabayashi et al. already recognize the criticality of using Pigment Blue 15:4. Specifically, col.11, lines 6-10 of Tabayashi et al. disclose that the use of Pigment Blue 15:4 is "most preferable" in view of color tones and dispersion properties. Although there is no disclosure that the use of Pigment Blue 15:4 produces ink with reduced angular dependency of color tone, given that Nakano et al. in combination with Tabayashi et al. disclose ink as presently claimed including Pigment Blue 15:4 as presently claimed, it is clear that the ink would intrinsically possess the same reduced angular dependency of color tone as presently claimed.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
1/9/06